This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A luminophore comprising a donor portion (D) in close association with an acceptor portion (A) sufficient for resonant energy transfer therebetween, wherein upon excitation by external electromagnetic radiation of a wavelength shorter than λ_1, said luminophore emits luminophore radiation in the range of about 450 to about 1200 nm of a wavelength longer than λ_1, with an emission lifetime t_1 and a quantum yield Q_1,

wherein when D is not in said close association with A, it absorbs radiation of a wavelength λ_2 shorter than λ_1 and thereafter emits radiation with a quantum yield Q_2 less than about 0.2,

wherein when said donor portion is in said close association with A and is excited by electromagnetic radiation of wavelength shorter than λ_1, it resonantly transfers energy to said acceptor portion A which then resonantly emits radiation of a wavelength longer than λ_1 with said emission lifetime t_1 and quantum yield Q_1, which is substantially greater than Q_2,

wherein said luminophore is a chemical compound wherein D is covalently linked to A.

2. (Canceled)

3. (Withdrawn) A luminophore of claim 1, wherein each of D and A are bound to separate molecules which can interact in solution to form said close association.

4. (Original) A luminophore of claim 1, wherein said luminophore radiation has a wave length of 500 to 1000 nm.

5. (Original) A luminophore of claim 4, wherein the emission lifetime is 25 ns to 100 μs.

6. (Original) A luminophore of claim 5, wherein said emission has a quantum yield Q_l of about 1.

7. (Original) A luminophore of claim 6, wherein at least one of D and A comprises a functional group by which it can be covalently bonded to another compound.

8. (Original) A compound of the formula

D-L-A

wherein D is a donor metal ligand complex having a quantum yield less than about 0.2 for emissions in the range greater than about 450 nm;

A is an acceptor of energy resonantly transferred from D which is then emitted in the wavelength range of about 450 to about 1200 nm; and

L is a spacer of a length effective for resonant energy transfer between D and A.

9. (Original) A compound of claim 2, further comprising a functional group by which it can be covalently bonded to another compound.

10. (Original) In a chemical compound marked with a covalently bonded detectable label, the improvement wherein the label is a compound of claim 9.

11. (Original) A method of labeling a chemical compound comprising covalently bonding thereto a compound of claim 9.

12. (Original) In a method of identifying a chemical species in a mixture of compounds comprising detecting radiation emitted by said chemical species, the improvement wherein said chemical species is a compound of claim 9.

13. (Original) A method of providing a probe which emits luminophore radiation of a wavelength λ_1 of about 450 nm to about 1200 nm with a high quantum yield Q_1 and a half-life greater than about 25 ns, comprising placing a donor molecule D, which per se emits radiation of a wavelength less than λ_1 with a quantum yield substantially lower than Q_1, in close association with an acceptor molecule A sufficient for resonant energy transfer from D to A, as a result of which D resonantly transfers energy to A and A emits said luminophore radiation.

14. (Original) A compound of claim 8, wherein D is a transition metal ligand complex.

15. (Original) A compound of claim 14, wherein said transition metal is Re, Ru, Os or Ir.

16. (Original) A luminophore of claim 1, wherein D is a transition metal ligand complex.

17. (Currently Amended) A ~~luninophore~~ luminophore of claim 1, wherein said quantum yield Q_2 is about 0.1.

18. (New) A luminophore of claim 1 having the formula of Figure 1.

19. (New) A luminophore of claim 1 having a formula of Figure 13.